

**Changes that develop in Teachers' Information
and Communication Technology (TICT) mediated
practice over time: A five year longitudinal,
qualitative study**

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Certificate of Originality

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at the University of Technology Sydney (UTS) or any other educational institution, except where due acknowledgment is made in my thesis. Any contribution made to the research by others, with whom I have worked at UTS or elsewhere is explicitly acknowledged in the thesis. I also declare that the intellectual content of the thesis is the product of my own work, except to the extent that assistance from others in the design and conception in style of the project and the presentation and linguistic expression is acknowledged.

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Abstract

Information and Communication Technology (ICT) has been in schools for a number of years now, however little is known about what actually takes place when teachers bring ICT into their professional pedagogical practice. This study contributes to this understanding by examining the lived experiences of five teachers in their ICT mediated practice over a period of five years.

To extend current understandings of change in teachers' ICT mediated practice this study uses a qualitative and longitudinal approach with grounded theory strategies. Assorted analysis contributed to the longitudinal component. This involved the analysis of pre-existing qualitative data of the teachers combined with primary data collection and analysis. Importantly, this study situates ICT mediated practice in order to examine the complex interrelationship between context, engagement with context, and development in individual teacher's ICT mediated practices over time. Aspects of Professional Practice theory and Socio-cultural theory were used to examine this relationship.

A significant finding of this study is that teachers' ICT mediated practices are changing and that the process of change is complex. Two factors were found to contribute to the complexity. One was the central role of professional identity in teachers' ICT mediated practice. It was found that change begins in a teacher's professional identity before it is observed as changed classroom teaching practice. A second factor contributing to complexity of change in ICT mediated practice was teachers' consistent use of particular aspects of their context (the syllabus, teachers' own status in school hierarchy and, non-school uses of ICT) and individual factors (teachers' core approaches to teaching and learning and also their ability and motivation to develop themselves professionally) as resources to inform the decisions they made in their ICT mediated practice. A theoretical model of change in ICT mediated practice is presented. The model indicates the teachers' use of contextual and individual resources was pronounced when they engaged with changes in their context they considered to be critical to their professional identity associated with their ICT mediated practice.

This study also makes a methodological contribution by showing that a qualitative longitudinal approach using grounded theory strategies and focusing on a small number of participants facilitates identifying and examining the significance of context and individual factors for change in TICT mediated practice. The use of context and individual factors supported explaining change in TICT mediated practice is more complicated than simply a change in actions a teacher performs in the classroom. This methodology also assisted in providing evidence that while on the surface, a teacher may look like their TICT mediated practice is not changing, there can be non-observable changes in their individual factors and professional identity (which sustain and influence the observable changes) which precede observable changed classroom practice.

Abbreviations

BOS: Board of Studies

DET: Department of Education and Training

ICT: Information and Communication Technology

ICT mediated practice: Information and Communication mediated practice

IPT: Information Processes and Technologies

IT: Information Technology

MP: Mediated practice

NSW: New South Wales

TICT mediated practice: Teachers' Information and Communication mediated practice